CLAIMS

1. A method for monitoring and analysing a process, in which method

a large number of variables are measured from the process,

with the aid of these variables, a fingerprint according to a good process situation, relative to runnability, is defined and then stored in a memory,

the stored fingerprints are compared with fingerprints obtained in a normal process situation,

on the basis of the comparison, the difference, displayed graphically to the user, between the recorded good situation and the momentary process situation is defined,

characterized in that the definition according to a good process situation is made separately in several sub-processes and at least one specific index in the selected sub-process is defined relative to runnability, according to a poor process situation, in order to detect a machine-specific critical situation.

2. A method, according to Claim 1, in a paper machine, characterized in that the said specific index relates to one of the following:

- the mass-mixing in the short circulation
- the condition of the felts in the press section
- the electrochemical state of the wet-end.

3. A method according to Claim 1 or 2, characterized in that the fingerprint according to a poor process situation is substantially narrower in its area than the fingerprints according to a good process situation.

4. A method according to any of Claims 1 - 3, characterized in that the fingerprint according to a poor process situation is

calculated from at the most six, preferably from 3 - 6 variables.

5. A method, according to any of Claims 1 - 4, using a neural network, characterized in that the fingerprint according to a good process situation is calculated in the teaching stage from at least ten, preferably from 10 - 20 variables.

6. A method, according to any of Claims 1 - 5, using a neural network, characterized in that the system is used under remote control.